AMENDMENTS TO THE CLAIMS
PURSUANT TO REVISED 37 CFR § 1.121

Claims 1- 48. (Cancelled)

49. (Presently Amended) A method, comprising:
    a) providing:
        i) ~~an in vitro~~ a translation system capable of incorporating an N-terminal marker and a C-terminal marker into a nascent protein or portion thereof; and
        ii) a nucleic acid coding for a protein or portion thereof, said protein or portion thereof suspected of containing mutation that causes chain truncation;
    b) introducing said nucleic acid into said in vitro translation system under conditions such that at least an N-terminal marker is introduced into a plurality of protein molecules or portions thereof; and
    c) determining whether at least a portion of said plurality of molecules contains a C-terminal marker.

50. (Previously Presented) The method of Claim 49, further comprising d) comparing the level of incorporation of the N-terminal and C-terminal markers.

51. (Previously Presented) The method of Claim 49, wherein the nascent protein generated is selected from recombinant gene products, gene fusion products, enzymes, cytokines, carbohydrate and lipid binding proteins, nucleic acid binding proteins, hormones, immunogenic proteins, truncated proteins, mutant proteins, human proteins, viral proteins, bacterial proteins, parasitic proteins and fragments and combinations thereof.

52. (Previously Presented) The method of Claim 49, wherein the translation system comprises a cellular or cell-free translation system.

53. (Previously Presented) The method of Claim 52, wherein the cellular translation system is selected from prokaryotic cells, eukaryotic cells, tissue culture cells, primary cells, cells *in vivo*, isolated immortalized cells, human cells and combinations thereof.

54. (Previously Presented) The method of Claim 52, wherein the cell-free translation system is selected from the group consisting of *Escherichia coli* lysates, wheat germ extracts,

insect cell lysates, rabbit reticulocyte lysates, frog oocyte lysates, dog pancreatic lysates, human cell lysates, mixtures of purified or semi-purified translation factors and combinations thereof.

55. (Previously Presented) The method of Claim 49, wherein said N-terminal marker comprises a fluorescent compound.

56. (Previously Presented) The method of Claim 55, wherein said fluorescent compound is selected from dipyrromethene boron difluoride (4,4-difluoro-4-bora-3a,4a-diaza-s-indacene) dyes and derivatized coumarin.

57. (Previously Presented) The method of Claim 49, wherein said C-terminal comprises a histidine tag.

58. (Previously Presented) The method of Claim 49, wherein said nucleic acid template contains sequences introduced by primer extension for at least one of said markers.

60. (Presently Amended) A method, comprising:

a) providing:

i) ~~an in vitro~~ a translation system capable of incorporating an N-terminal marker and a C-terminal marker into a nascent protein or portion thereof; and

ii) a nucleic acid coding for a disease-associated protein or portion thereof, said protein or portion thereof suspected of containing mutation that causes chain truncation;

b) introducing said nucleic acid into said in vitro translation system under conditions such that at least an N-terminal marker is introduced into a plurality of protein molecules or portions thereof; and

c) determining whether at least a portion of said plurality of molecules contains a C-terminal marker.

61. (Previously Presented) The method of Claim 60, further comprising d) comparing the level of incorporation of the N-terminal and C-terminal markers.

62. (Previously Presented) The method of Claim 60, wherein the nascent protein generated is selected from recombinant gene products, gene fusion products, enzymes, cytokines,

carbohydrate and lipid binding proteins, nucleic acid binding proteins, hormones, immunogenic proteins, truncated proteins, mutant proteins, human proteins, viral proteins, bacterial proteins, parasitic proteins and fragments and combinations thereof.

63. (Previously Presented) The method of Claim 60, wherein the translation system comprises a cellular or cell-free translation system.

64. (Previously Presented) The method of Claim 63, wherein the cellular translation system is selected from prokaryotic cells, eukaryotic cells, tissue culture cells, primary cells, cells *in vivo*, isolated immortalized cells, human cells and combinations thereof.

65. (Previously Presented) The method of Claim 63, wherein the cell-free translation system is selected from the group consisting of *Escherichia coli* lysates, wheat germ extracts, insect cell lysates, rabbit reticulocyte lysates, frog oocyte lysates, dog pancreatic lysates, human cell lysates, mixtures of purified or semi-purified translation factors and combinations thereof.

66. (Previously Presented) The method of Claim 60, wherein said N-terminal marker comprises a fluorescent compound.

67. (Previously Presented) The method of Claim 66, wherein said fluorescent compound is selected from dipyrromethene boron difluoride (4,4-difluoro-4-bora-3a,4a-diaza-s-indacene) dyes and derivatized coumarin.

68. (Previously Presented) The method of Claim 60, wherein said C-terminal comprises a histidine tag.

69. (Previously Presented) The method of Claim 60, wherein said nucleic acid template contains sequences introduced by primer extension for at least one of said markers.

70. (Previously Presented) The method of Claim 69, wherein said primer extension was performed as part of the polymerase chain reaction.